ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

Comparison of Public Health Assessments and Risk Assessments

Issue	Public Health Assessments (PHA)	Risk Assessments (RA)
What it is:	■ A process to evaluate exposure to chemicals in the environment and the impact of those exposures on public health ■ It defines likely exposure pathways and potentially exposed populations to address community health concerns ■ It recommends actions to protect public health	■ A process to provide risk managers and the community with an understanding of the potential human health risk posed by a site in the absence of any cleanup ■ A transparent assessment process for making consistent remedial decisions that are protective of human health and ecological receptors ■ It estimates unacceptable risks as defined by regulatory standards and requirements
What it is not:	■ A medical evaluation ■ A health study ■ A regulatory document ■ An evaluation of ecological risks	■ A prediction of the likely health effects from exposure ■ A document containing public health recommendations
Data / Information Used	■ Environmental & biologic data ■ Community health concerns ■ Health effects data (i.e., epidemiological, toxicological, and health outcome data) ■ Site-specific exposure considerations ■ Health guidelines to screen for chemicals needing further evaluation	■ Environmental data ■ Remedial goals ■ Toxicity data ■ Default and site specific exposure assumptions ■ Regulatory guidelines to determine unacceptable risk that need to be addressed through remediation

Over

Issue	Public Health Assessments (PHA)	Risk Assessments (RA)
Health Guidelines Used	For Screening: ■ Minimal Risk Levels (MRLs) ■ Reference Doses (RfDs) ■ Reference Concentation (RfCs) ■ 10^{-6} cancer risk	To Determine Unacceptable Risk: ■ RfDs ■ RfCs ■ 10^{-4} to 10^{-6} cancer risk ■ Cancer Slope Factors
Findings	■ Identify actual chemical and radiological exposures to environmental contamination ■ Assess real or perceived site-related health problems ■ Focus on the past, the present and the future ■ Recommend measures to prevent or reduce exposure ■ Develop mechanisms to re-evaluate public health issues as site conditions change ■ Recommend health-based follow-up actions	■ Calculate reasonable maximum exposures to derive cleanup goals that are protective of sensitive populations and ecological endpoints ■ Establish site-specific cleanup goals ■ Focus on the present and the future
Outcome / Endpoint	■ Reduce exposures ■ Fill data gaps (via sampling or research) ■ Health Studies ■ Health Education ■ Exposure Registries ■ Address community concerns ■ Leverage public and private partnerships to implement public health actions	■ Support for regulatory decisions (based on human and ecological risks)

**For a more detailed comparison, see*
"A Citizen's Guide to Risk and Health Assessments at Contaminated Sites," November 2003.